

## 2019 BC Lower Mainland Antibiograms

The following antibiograms are profiles of antimicrobial susceptibility testing results of pathogens submitted to LifeLabs from January 1, 2018 to December 31, 2018 as per the Clinical and Laboratory Standards Institute (CLSI) document M39-A4.

**Respiratory Tract Pathogens (Sputum)** 

		ANTIBIOTIC (% susceptible)																	
ORGANISM	Number of isolates tested	Amoxicillin - Clavulanate	Ampicillin <sup>1</sup>	Azithromycin	Ceftriaxone	Cefuroxime	Ciprofloxacin	Clarithromycin	Doxycycline	Erythromycin	Levofloxacin	Tetracycline	Penicillin (oral)	TMX	Ceftazidime	Gentamicin	Meropenem	Piperacillin- Tazobactam	brar
Haemophilus influenzae	213	98	67		100		99					97	R	71					
Moraxella catarrhalis <sup>2</sup>	157		R										R						
Pseudomonas aeruginosa	114						81								92	87	96	95	99
Streptococcus pneumoniae <sup>3</sup>	100	>95	>95	60	>95	>95		60	47	60	98		>70	72					

<sup>&</sup>lt;sup>1</sup>Results of ampicillin testing can be used to predict results for amoxicillin.

Skin and Soft Tissue Pathogens

ORGANISM			ANTIBIOTIC (% susceptible)												
	Number of isolates tested	Ampicillin	Azithromycin	Ceftriaxone	Cephalothin / Cephalexin	Clarithromycin	Clindamycin	Cloxacillin	Erythromycin	Levofloxacin	Linezolid	Penicillin	Tetracycline <sup>1</sup>	TMX	Vancomycin
S. aureus (MSSA)	8454				100		84	100	79				95	99	
S. aureus (MRSA)	2136	R		R	R		73	R	26		100	R	81	96	100
Group A Streptococcus²	227	100	78	100	100	78	79		78	100		100		R	100
Group B Streptococcus <sup>2</sup>	77	100	47	100	100	47	51		47	97		100		R	100

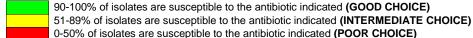
<sup>1</sup> Isolates susceptible to tetracycline are predictably susceptible to doxycycline; however, some isolates that are resistant to tetracycline may be susceptible to doxycycline.

## **Urinary Tract Pathogens**

		ANTIBIOTIC (% susceptible)											
ORGANISM	Number of isolates tested	Ampicillin¹	Ceftriaxone	Cephalothin / Cephalexin	Ciprofloxacin	Fosfomycin <sup>2</sup>	Gentamicin	Nitrofurantoin	<b>Tetracycline</b> <sup>3</sup>	TMX			
Escherichia coli	36585	59	92	54	84	98	93	97	75	78			
Group B Streptococcus⁴	6406						R			R			
Enterococcus faecalis	5821	100		R	81	99		99	21	R			
Klebsiella pneumoniae	4295	R	96	94	97		98	36	88	94			
Proteus mirabilis	2231	79	97	92	89		92	R	R	79			

<sup>&</sup>lt;sup>1</sup> Results of ampicillin testing can be used to predict results for amoxicillin.

<sup>&</sup>lt;sup>4</sup>Antimicrobial susceptibility testing is not routinely performed on urine isolates of group B Streptococcus because such infections usually respond to antibiotics commonly used to treat uncomplicated urinary tract infections, such as ampicillin, cephalosporins and nitrofurantoin. Susceptibility to fluoroquinolones is variable.



The organism is inherently resistant to the antibiotic indicated **OR** is not recommended due to poor clinical response and/or poor activity Antimicrobial susceptibility testing not performed

TMX = Trimethoprim-Sulfa; MSSA = Methicillin-susceptible Staphylococcus aureus; MRSA = Methicillin-resistant Staphylococcus aureus

<sup>&</sup>lt;sup>2</sup>Susceptibility testing for *Moraxella catarrhalis* is not routinely performed. Most clinical isolates of *M. catarrhalis* are resistant to amoxicillin but susceptible to amoxicillin-clavulanate, macrolides, trimethoprim-sulfamethoxazole, quinolones, cefuroxime, cefixime, and ceftriaxone.

<sup>&</sup>lt;sup>3</sup>Detailed data for beta-lactam antibiotics is not available for S. pneumoniae due to differences in testing for oxacillin-susceptible and resistant strains.

<sup>&</sup>lt;sup>2</sup>Groups A, B, C and G streptococcal isolates are predictably susceptible to penicillin, amoxicillin and cephalosporins, therefore antimicrobial susceptibility testing is not routinely performed.

<sup>&</sup>lt;sup>2</sup>Fosfomycin testing was performed on a limited number of *E. coli* (n=2551) and *E. faecalis* (n=269) isolates.

<sup>&</sup>lt;sup>3</sup>Isolates susceptible to tetracycline are predictably susceptible to doxycycline; however, some isolates that are resistant to tetracycline may be susceptible to doxycycline.